

NOTES ON THE ODONATA OF BLACK HAWK COUNTY, IOWA¹

Steve Hummel², A.C. Haman²

ABSTRACT: 51 species of odonates are reported as indigenous to Black Hawk County. Of these, *Lestes congener* Hagen and *Sympetrum costiferum* (Hagen) are new records for the State of Iowa.

During the past two years a survey was conducted of the Odonata in Black Hawk County, updating the only previous study made by Miller (1906), who reported 28 species for the county. Adults were captured and identifications were made using Needham and Westfall (1955) and Walker (1953). Adults were placed in cellophane envelopes and stored in the University of Northern Iowa's insect collection. Determinations of state records were confirmed by M.J. Westfall, Jr. The following is a listing of species collected by the authors, an asterisk indicates species previously reported by Miller.

ANISOPTERA

Gomphidae

- | | |
|--|---|
| 1. <i>Gomphus submedianus</i> Will. 1914 | *3. <i>Gomphus fraternus</i> (Say) 1839 |
| 2. <i>Gomphus esternus</i> Hagen 1857 | |

Aeschnidae

- | | |
|---------------------------------------|--------------------------------------|
| *1. <i>Anax junius</i> (Drury) 1770 | 3. <i>Aeschna umbrosa</i> Walk. 1908 |
| 2. <i>Aeschna constricta</i> Say 1839 | |

Corduliidae

- | | |
|--|--|
| *1. <i>Epicordulia princeps</i> (Hagen) 1861 | *2. <i>Tetragoneuria cynosura</i> (Say) 1839 |
|--|--|

Libellulidae

- | | |
|---|---|
| 1. <i>Celithemis elisa</i> (Hagen) 1861 | 10. <i>Sympetrum corruptum</i> (Hagen) 1861 |
| *2. <i>Erythemis simplicicollis</i> (Say) 1839 | 11. <i>Sympetrum costiferum</i> (Hagen) 1861 (New record) |
| *3. <i>Holotania luctuosa</i> (Burm.) 1839 | 12. <i>Sympetrum internum</i> Mont. 1943 |
| *4. <i>Leucorrhinia intacta</i> Hagen 1861 | 13. <i>Sympetrum obtrusum</i> (Hagen) 1867 |
| *5. <i>Neotetrum pulchellum</i> (Drury) 1770 | 14. <i>Sympetrum rubicundulum</i> (Say) 1839 |
| 6. <i>Pantala flavescens</i> (Fabr.) 1798 | 15. <i>Sympetrum vicinum</i> (Hagen) 1861 |
| 7. <i>Pantala hymenaea</i> (Say) 1839 | 16. <i>Tramea lacerata</i> Hagen 1861 |
| *8. <i>Plathemis lydia</i> (Drury) 1770 | 17. <i>Tramea onusta</i> Hagen 1861 |
| *9. <i>Pachydiplax longipennis</i> (Burm.) 1839 | |

¹Accepted for publication: February 7, 1975

²Department of Biology, University of Northern Iowa, Cedar Falls, Iowa 50613

ZYGOPTERA

Calopterygidae

- | | |
|--|---|
| *1. <i>Calopteryx aquabilis</i> Say 1839 | *3. <i>Hetaerina americana</i> (Fabr.) 1798 |
| *2. <i>Calopteryx maculata</i> (Beauv.) 1905 | 4. <i>Hetaerina titia</i> (Drury) 1778 |

Lestidae

- | | |
|--|---|
| 1. <i>Archilestes grandis</i> (Rbr.) 1842 | *4. <i>Lestes forcipatus</i> (Rbr.) 1842 |
| 2. <i>Lestes congener</i> Hagen 1861
(New record) | *5. <i>Lestes rectangularis</i> Say 1839 |
| 3. <i>Lestes eurinus</i> Say 1839 | *6. <i>Lestes unguiculatus</i> Hagen 1861 |

Coenagrionidae

- | | |
|--|---|
| *1. <i>Amphiagrion</i> sp. | 6. <i>Enallagma civile</i> (Hagen) |
| 2. <i>Argia apicalis</i> (Say) 1839 | *7. <i>Enallagma ebrium</i> (Hagen) 1861 |
| 3. <i>Argia moesta</i> (Hagen) 1861 | *8. <i>Enallagma hageni</i> Walsh 1863 |
| *4. <i>Enallagma antennatum</i> (Say) 1839 | *9. <i>Ischnura verticalis</i> (Say) 1839 |
| 5. <i>Enallagma boreale</i> Selys 1875 | *10. <i>Nehalennia irene</i> (Hagen) 1861 |

Fifty-one species of odonates currently inhabit Black Hawk County. Of the 28 species previously reported by Miller (1906) only six, *Lestes dryas* Kirby, *Anomalagrion hastatum* (Say), *Gomphus cornutus* Tough, *Gomphus ventricosus* Walsh, *Nasiaeschna pentacantha* (Rbr.) and *Macromia illinoiensis* Walsh, were not collected in this study. Three of the above six species, *G. ventricosus*, *N. pentacantha* and *M. illinoiensis*, have been recorded in Iowa only by Miller. One of the six species, *L. dryas*, has been captured by the authors in Fayette and Delaware counties and should be found in Black Hawk. Three species, *A. hastatum*, *G. cornutus* and *G. ventricosus*, were possibly overlooked during the study due to small size and secretive habits, *A. hastatum*; or rarity, *G. cornutus* and *G. ventricosus*. Two species, *N. pentacantha* and *M. illinoiensis*, may be extinct in Black Hawk County due to the present lack of suitable habitat.

Perithemis tenera (Say) although not collected was sighted adding 24 species not previously reported. Of these 24 species, two, *Lestes congener* Hagen and *Sympetrum costiferum* (Hagen) represent new records for the State of Iowa (Montgomery, 1967). Personal collections and literature records (Whedon, 1912) from adjacent counties indicate that the list is still incomplete.

ACKNOWLEDGMENTS

The authors wish to acknowledge the assistance of Dr. George Bick in general advisement and Dr. M.J. Westfall, Jr., in assistance in making determinations.

BIBLIOGRAPHY

- Miller, N. 1906. Some notes on the dragonflies of Waterloo, Iowa. Ent. News. 17 (10): 357-361.
- Montgomery, B.E. 1967. Geographical distribution of the Odonata of the North Central States. North Central Branch Ent. Soc. of Amer., Proc. 22: 121-129.
- Needham, J.G. and M.J. Westfall, Jr. 1955. A manual of the dragonflies of North America (Anisoptera). Univ. of Calif. Press. 615 pp.
- Walker, E.M. 1953. The Odonata of Canada and Alaska; Vol. 1 (Zygoptera). Univ. of Toronto Press. 292 pp.
- Whedon, A.D. 1912. Odonata of Iowa. Masters Thesis, Univ. of Iowa. 79 pp. + plates.